

**I CLAIM:**

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1. A composition having formula I or II:



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wherein:

$X_1$  is from zero to twenty natural or synthetic amino acids;

P is a peptide comprising Gly Pro Arg (SEQ ID NO: 1), or an analog or fragment thereof;

$X_2$  is from zero to twenty natural or synthetic amino acids;

Z is a linker comprising one or more natural or synthetic amino acids; and

M is a radiolabeling moiety comprised of a chelating moiety capable of complexing with a selected radionuclide.

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2. The composition according to Claim 1 comprising SEQ ID NO: 1.

3. The composition according to Claim 1, wherein the radiolabeling moiety is complexed to the radionuclide.

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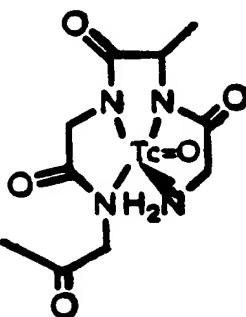
4. The composition according to Claim 3, wherein the radionuclide is technetium-99m.

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5. The composition according to Claim 3 having the formula:

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Gly-Pro-Arg-Pro-Pro-Aba\*-CO-NH-



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6. The composition according to Claim 1, wherein M comprises Gly -(D)-  
Ala-Gly-Gly (SEQ ID NO: 4) as a chelating moiety for a radionuclide.

5 7. A method of imaging mammalian cells or tissue, comprising administering  
a diagnostically effective amount of the composition of Claim 1 to a mammal at a target site  
and detecting the composition at said target site.

10 8. The method of Claim 6, wherein said target site is a mammalian thrombus.

9. A method of imaging thrombus in a mammal, comprising:  
administering a diagnostically effective amount of a composition that binds  
to fibrin, said composition having a radiolabeling moiety; and  
detecting said composition at a site of said thrombus.

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